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AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1   1.   (Currently Amended) A method of testing a computer, the computer having a controller,

2   the method comprising:

3   during a test sequence, adjusting a reference voltage signal from a first level to a second

4   level in response to an output from the controller in the computer, the first level being a level of

5   the reference voltage signal during normal operation of the computer;

6   during the test sequence, testing operation of a receiver in the computer with the

7   reference voltage signal set at the second level, an input of the receiver being connected to the

8   reference voltage signal, and another input of the receiver being connected to a single-ended

9   signal that is processed by the receiver both during the normal operation and the test sequence;

10   and

11   adjusting the reference voltage signal back from the second level to the first level to

12   enable normal operation of the computer.

1   2.   (Cancelled)

1   3.   (Currently Amended) The method of claim [[2]] 1, wherein testing the operation of the

2   receiver comprises testing operation of a differential receiver.

1   4.   (Original) The method of claim 1, further comprising testing operation of a second

2   receiver, the second receiver being connected to the reference voltage signal.

1   5.   (Original) The method of claim 4, wherein the computer comprises a bus having

2   transmission lines for carrying plural signals, the method further comprising transmitting the

3   plural signals over the transmission lines to the receivers.

1   6.   (Original) The method of claim 5, wherein transmitting the plural signals is performed

2   by transmitters in a bus device connected to the bus.

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1 7.   (Original) The method of claim 1, further comprising controlling the output of the

2 controller by a software routine.

1 8.   (Original) The method of claim 7, wherein controlling the output of the controller

2 comprises controlling a general purpose input/output (GPIO) port of the controller.

1 9.   (Original) The method of claim 1, further comprising indicating a margin of the

2 reference voltage signal as poor in response to the testing producing an error.

1 10.   (Original) The method of claim 1, wherein adjusting the reference voltage signal

2 comprises a test circuit adjusting the reference voltage signal, the test circuit responsive to the

3 output of the controller.

1 11.   (Currently Amended) A computer system comprising:

2   a processor;

3   test software executable on the processor;

4   a circuit to generate a reference voltage signal;

5   a receiver having [[an]] a first input connected to the reference voltage signal and a

6 second input connected to a single-ended signal that is processed by the receiver during normal

7 operation of the computer system; and

8   the circuit responsive to the test software to adjust a voltage level of the reference voltage

9 signal from a first voltage level to a second voltage level,

10   the test software to perform a diagnostic test with the reference voltage signal at the

11 second voltage level to test operation of the receiver to perform margin testing of the receiver

12 with respect to the single-ended signal.

1 12.   (Original) The computer system of claim 11, further comprising a second receiver

2 having an input connected to the reference voltage signal, the diagnostic test to also test

3 operation of the second receiver.

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1   13.   (Original) The computer system of claim 12, wherein the receivers are differential

2   receivers each having a second input connected to a respective single-ended signal.

1   14.   (Original) The computer system of claim 13, further comprising a bus, wherein the bus

2   comprises transmission lines to carry the single-ended signals.

1   15.   (Currently Amended) The computer system of claim 11, further comprising:

2   a transmitter to generate [[a]] the single-ended signal, wherein the receiver has a second

3   input connected to the single-ended signal.

1   16.   (Original) The computer system of claim 11, further comprising a general purpose

2   input/output (GPIO) buffer responsive to commands from the test software to control the voltage

3   level of the reference voltage signal produced by the circuit.

1   17.   (Original) The computer system of claim 11, wherein the circuit comprises a voltage

2   divider to produce the reference voltage signal, the circuit further comprising a resistor

3   connected to the voltage divider to adjust the voltage level of the reference voltage signal from

4   the first voltage level to the second voltage level.

1   18.   (Original) The computer system of claim 11, wherein the circuit comprises an

2   electronically adjustable potentiometer responsive to the test software

1   19.   (Original) The computer system of claim 11, wherein the circuit comprises a digital-to-

2   analog converter responsive to the test software.

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1   20.   (Currently Amended) A computer system comprising:

2   a processor;

3   software executable on the processor;

4   means for generating a reference voltage signal; and

5   receiving means having [[an]] a first input connected to the reference voltage signal and a

6   second input connected to a single-ended signal that is processed during normal operation of the

7   computer system;

8   wherein the generating means is responsive to the software to adjust a voltage level of the

9   reference voltage signal from a first voltage level to a second voltage level, and

10   the software to perform a diagnostic test with the reference voltage signal at the second

11   voltage level to test operation of the receiving means to perform margin testing of the receiving

12   means with respect to the single-ended signal.

1   21.   (Currently Amended) An apparatus for use in a computer, comprising:

2   a transmitter to transmit a single-ended signal for use during normal operation of the

3   computer;

4   a circuit to generate a reference voltage signal;

5   a receiver having a first input connected to the single-ended signal, and a second input

6   connected to the reference voltage signal; and

7   a controller to control the circuit to vary a voltage level of the reference voltage signal

8   during a test sequence,

9   wherein the controller is adapted to perform a diagnostic test during the test sequence

10.   after varying the voltage level of the reference voltage signal to test performance of the receiver

11   with respect to the single-ended signal.

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1   22.   (Original) The apparatus of claim 21, wherein the controller is adapted to control the
2   circuit to vary the voltage level of the reference voltage signal from a first voltage level to a
3   second voltage level, the first voltage level corresponding to a voltage level of the reference
4   voltage signal for normal operation,
5   the controller adapted to perform the diagnostic test with the reference voltage signal set
6   at the second voltage level.

1   23.   (Original) The apparatus of claim 21, wherein the receiver comprises a differential
2   receiver.

1   24.   (Original) The apparatus of claim 21, wherein the controller comprises software.

1   25.   (Currently Amended) An article comprising at least one computer-readable storage
2   medium containing instructions that when executed cause a system computer to:
3   send commands during a test sequence to a circuit to cause a voltage level of a reference
4   voltage signal to be adjusted from a first level to a second level, the first level corresponding to a
5   voltage level of the reference voltage signal during normal operation; and
6   perform, during the test sequence, a diagnostic test of a receiver having [[an]] a first input
7   connected to the reference voltage signal with the reference voltage signal at the second level,
8   and the receiver having a second input connected to a single-ended signal that is processed both
9   during the normal operation and the test sequence.

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